

**Notice of Allowability**

Application No.

09/851,898

Applicant(s)

HALCOMB ET AL.

Examiner

Art Unit

Russell L. Guill

2123

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed December 22, 2005.
2. ☒ The allowed claim(s) is/are 1-2, 4-6, 8-16, 18-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to the applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Carmen Patti on January 20, 2006.
3. The application has been amended as follows:
  - a. Page 4, line 8, the words "within a computer readable signal-bearing medium" have been replaced with the words --recorded on a computer-readable signal-bearing medium as one or more executable processor instructions--.
  - b. Page 5, line 1, the word "comprising" has been replaced with the words --on which are recorded one or more executable processor instructions comprising--.
4. Claims 1 - 2, 4 - 6, 8 - 16, and 18 - 20 are allowed.
5. The following is an examiner's statement of reasons for allowance:
  - a. Regarding **claim 1**, while Lewis, FLEX10K and Brynjolfson teach a programmable logic device, arranged and constructed to receive a program that programs at least one processor operation and a variable clock speed into the programmable logic device, wherein the programmable logic device is arranged and constructed to adjust the variable clock speed during execution of the at least one processor operation, neither of these references taken either alone or in combination with the prior art of record teach the aforementioned programmable logic device specifically including: a programmable logic device, arranged and constructed to receive a program that programs at least one processor operation and a variable clock speed into the programmable logic device; wherein the

programmable logic device is arranged and constructed to adjust the variable clock speed during execution of the at least one processor operation; and wherein the programmable logic device is arranged and constructed to emulate the at least one processor operation repeatedly without interruption from one or more cyclical processor operations other than the at least one operation of the processor, in combination with the remaining elements and features of the claimed invention. It is for these reasons that the Applicant's invention defines over the prior art of record.

b. Regarding **claim 4**, while Lewis, Keenan (U.S. Patent 4,903,199), Mitchell (U.S. Patent 6,230,119) and Brynjolfson teach a method of programming a programmable logic device to emulate at least one operation of a processor and programming the programmable logic device to operate at a clock speed, neither of these references taken either alone or in combination with the prior art of record teach the aforementioned method of programming a programmable logic device specifically including: selecting an operation that emulates at least one operation of a processor; selecting a clock speed at which to operate the programmable logic device; programming the programmable logic device to operate at the clock speed; repeatedly testing the operation in combination with a circuit without waiting through processor operation cycles that do not provide the operation; adjusting the clock speed during the step of repeatedly testing the operation in combination with the circuit, in combination with the remaining elements and features of the claimed invention. It is for these reasons that the Applicant's invention defines over the prior art of record.

c. Regarding **claim 13**, while Lewis, Keenan (U.S. Patent 4,903,199), and Brynjolfson teach a computer readable signal-bearing medium on which are

recorded one or more executable processor instructions comprising computer readable program code to program a programmable logic device to emulate at least one operation of a processor and to program a programmable logic device to operate at a clock speed, neither of these references taken either alone or in combination with the prior art of record teach the aforementioned computer readable signal-bearing medium on which are recorded one or more executable processor instructions comprising computer readable code to program a programmable logic device specifically including: computer readable program code for downloading one or more processor operations into a programmable logic device; computer readable program code for selecting one of the one or more processor operations; computer readable program code for selecting a clock speed at which to operate the programmable logic device; computer readable program code for programming the programmable logic device to operate at the clock speed; computer readable program code for repeatedly executing the selected one of the one or more processor operations without waiting through one or more other processor operations of a processor operation cycle that do not provide the selected one of the one or more processor operations; and computer readable program code for adjusting the clock speed while repeatedly executing the selected one of the one or more processor operations, in combination with the remaining elements and features of the claimed invention. It is for these reasons that the Applicant's invention defines over the prior art of record.

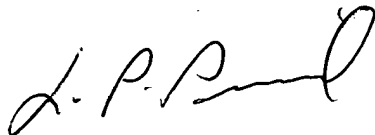
6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell L. Guill whose telephone number is 571-272-7955. The examiner can normally be reached on Monday - Friday 10:00 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**LEO PICARD**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**

Russ Guill  
Examiner  
Art Unit 2123

RG